

Title (en)  
METHOD FOR PRODUCING STRETCHABLE SHEET

Title (de)  
VERFAHREN ZUR HERSTELLUNG EINER DEHNBAREN FOLIE

Title (fr)  
PROCÉDÉ DE PRODUCTION DE FEUILLE ÉTIRABLE

Publication  
**EP 3251646 B1 20210113 (EN)**

Application  
**EP 16743585 A 20160129**

Priority

- JP 2015017498 A 20150130
- JP 2015067324 A 20150327
- JP 2015067325 A 20150327
- JP 2015068068 A 20150330
- JP 2015070295 A 20150330
- JP 2015195462 A 20150930
- JP 2015220312 A 20151110
- JP 2016052812 W 20160129

Abstract (en)  
[origin: EP3251646A1] To acquire a stretchable sheet having air permeability due to the presence of through-holes, with no hole formed through outer layers. There are provided: interposing a resilient film (30) that stretches and contracts, in a stretched state between a first sheet layer (21) having no elasticity and a second sheet layer (22) having no elasticity; and joining the first sheet layer (21) and the second sheet layer (22) together with a number of joints directly or through the resilient film 30 by melting the resilient film (30) with ultrasonic fusion energy applied by a thermal fusion device from the outside of the first sheet layer (21) and the outside of the second sheet layer (22) to a number of joint regions with intervals, during the interposing. A through-hole (31) is formed through at least a boundary portion in a direction of the stretching between the resilient film (30) and each of joints (40), with the first sheet layer (21) and the second sheet layer (22) retained, no hole being formed over the entirety of each of the joint regions.

IPC 8 full level  
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CPC (source: EP KR US)  
**A61F 13/15** (2013.01 - EP US); **A61F 13/15699** (2013.01 - KR US); **A61F 13/15723** (2013.01 - KR); **A61F 13/49** (2013.01 - EP US); **A61F 13/49011** (2013.01 - KR); **A61F 13/4902** (2013.01 - KR); **A61F 13/496** (2013.01 - EP KR US); **A61F 13/5123** (2013.01 - KR); **B29C 65/086** (2013.01 - EP); **B29C 66/1122** (2013.01 - EP); **B29C 66/21** (2013.01 - EP); **B29C 66/41** (2013.01 - EP); **B29C 66/433** (2013.01 - EP); **B29C 66/7294** (2013.01 - EP); **B29C 66/81429** (2013.01 - EP); **B29C 66/81433** (2013.01 - EP); **B29C 66/83413** (2013.01 - EP); **B29C 66/83511** (2013.01 - EP); **A61F 2013/15886** (2013.01 - KR); **B29C 66/7294** (2013.01 - US); **B29C 66/83415** (2013.01 - EP); **B29L 2031/4878** (2013.01 - EP); **B32B 37/144** (2013.01 - US)

Citation (opposition)  
Opponent : Essity Hygiene and Health AB

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- EP 0274752 A2 19880720 - KIMBERLY CLARK CO [US]
- WO 03000165 A1 20030103 - PROCTER & GAMBLE [US]
- EP 2223796 A1 20100901 - TREDEGAR FILM PROD CORP [US]
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- EP 1355604 B1 20090805 - FAMECCANICA DATA SPA [IT]
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- EP 0685586 A2 19951206 - INT PAPER CO [US]
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KR 102506117 B1 20230303; KR 20170110607 A 20171011; US 10517770 B2 20191231; US 2018014979 A1 20180118;  
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